

Distribution Patterns of Humpback Whitefish in the Upper Tanana River Drainage

Abstract: Humpback whitefish are present in the upper Tanana River drainage in interior Alaska. However, little is known of their migrations or habits through the seasons. Previous attempts to study the species using radio telemetry have been largely ineffective, as they appear to be quite fragile and most fish have either been lost or perished shortly after tagging. This project was designed to test the utility of refined radio telemetry techniques and equipment to track the movements of 32 adult humpback whitefish through the summer, fall and early winter of 2000. Transmitters were surgically implanted in fish captured at the confluence of the Kalutna and Tanana rivers in July, and their movements were monitored using boat and aerial tracking techniques. The methods appeared to be effective, as 30 of 32 fish are known to have recovered from the tagging event and moved upstream. Relocations in the summer and fall were in riverine rather than lacustrine habitats, and the movement patterns among tagged fish were similar through the seasons. Following tagging they dropped a short distance downstream. In late summer they migrated upstream to relatively discrete regions of the Nabesna and Chisana rivers. These regions are now suspected to be spawning areas. They remained in these upstream regions until early October. By winter they had dropped back downstream into regions of the Tanana River and the Tetlin Lake system, where they are presumably overwintering.

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